

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2004/011642

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 C23C18/18 C23C18/32 C23C18/31 C25D5/48		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7 C23C C25D		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 511 614 A (GREESON ET AL) 16 April 1985 (1985-04-16)	1-12, 18-29, 36-38
Y	column 1, lines 58-62; claims 1,5  column 3, lines 26-33 column 4, lines 48-53 column 5, lines 38-43,62-68; example 1	13-17, 30-35
X	EP 0 317 838 A (ANRITSU CORPORATION) 31 May 1989 (1989-05-31)  page 12, lines 42-50; claim 12	8-12, 25-29, 36,38
X	US 4 233 107 A (JOHNSON, SR. ET AL) 11 November 1980 (1980-11-11)  claims 1,8	8-12, 25-29, 36,38
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the International filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the International filing date but later than the priority date claimed *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family		
Date of the actual completion of the international search  15 February 2005		Date of mailing of the international search report  22/02/2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer  Gault, N

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 011, no. 106 (C-414), 3 April 1987 (1987-04-03) & JP 61 253383 A (TOKAI RIKA CO LTD), 11 November 1986 (1986-11-11) cited in the application abstract	8-12, 25-29, 36,39
Y	PATENT ABSTRACTS OF JAPAN vol. 015, no. 227 (C-0839), 10 June 1991 (1991-06-10) & JP 03 068785 A (OKUNO SEIYAKU KOGYO KK), 25 March 1991 (1991-03-25) abstract	8-12, 25-29, 36-39
Y	& DATABASE WPI Section Ch, Week 199123 Derwent Publications Ltd., London, GB; Class M13, AN 129282 & JP 03 068785 A (OKUNO SEIYAKU KOGYO KK) 25 March 1991 (1991-03-25) abstract	8-12, 25-29, 36-39
Y	US 5 718 745 A (ITOH ET AL) 17 February 1998 (1998-02-17) column 2, lines 27-56; claims 1-5,7 column 5, lines 4-33	13-17, 30-34
Y	PATENT ABSTRACTS OF JAPAN vol. 018, no. 128 (C-1174), 2 March 1994 (1994-03-02) & JP 05 311466 A (HASHIMOTO KASEI KK; others: 01), 22 November 1993 (1993-11-22) abstract	35
A	PATENT ABSTRACTS OF JAPAN vol. 015, no. 313 (C-0857), 9 August 1991 (1991-08-09) & JP 03 115583 A (ANRITSU CORP), 16 May 1991 (1991-05-16) abstract	1-12, 18-29, 36,38

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/011642

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4511614	A	16-04-1985	NONE	
EP 0317838	A	31-05-1989	JP 1178829 A	17-07-1989
			JP 1853765 C	07-07-1994
			JP 5067889 B	27-09-1993
			JP 1219180 A	01-09-1989
			JP 1812380 C	27-12-1993
			JP 5020516 B	19-03-1993
			JP 2048913 U	05-04-1990
			JP 2048914 U	05-04-1990
			JP 1825075 C	28-02-1994
			JP 2080581 A	20-03-1990
			JP 5027708 B	22-04-1993
			JP 2080582 A	20-03-1990
			JP 2661983 B2	08-10-1997
			JP 2093503 A	04-04-1990
			JP 1188680 A	27-07-1989
			JP 1741504 C	15-03-1993
			JP 4031024 B	25-05-1992
			DE 3887832 D1	24-03-1994
			DE 3887832 T2	09-06-1994
			EP 0317838 A2	31-05-1989
			US 4984855 A	15-01-1991
			US 5096300 A	17-03-1992
			US 5083222 A	21-01-1992
			US 5111335 A	05-05-1992
			US 5079643 A	07-01-1992
			US 5074957 A	24-12-1991
US 4233107	A	11-11-1980	AT 3064 T	15-04-1983
			AU 529399 B2	02-06-1983
			AU 5761580 A	23-10-1980
			CA 1151959 A1	16-08-1983
			DE 3062695 D1	19-05-1983
			EP 0018219 A1	29-10-1980
			JP 57114655 A	16-07-1982
			US 4361630 A	30-11-1982
JP 61253383	A	11-11-1986	JP 1007153 B	07-02-1989
JP 03068785	A	25-03-1991	JP 2023576 C	26-02-1996
			JP 7042588 B	10-05-1995
US 5718745	A	17-02-1998	JP 2901523 B2	07-06-1999
			JP 9049085 A	18-02-1997
JP 05311466	A	22-11-1993	JP 3115103 B2	04-12-2000
JP 03115583	A	16-05-1991	NONE	